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DELAYED SYMPTOMS AFTER INJURY TO THE HEAD.

BY S. G. WEBBER, M.D.

THE length of time which may elapse after an accident before cerebral symptoms set in, is a point in prognosis worthy of notice. Generally, if the injury is severe, a series of phenomena commences immediately, and there can be no doubt as to the connection between the accident and the symptoms. Occasionally an interval of time intervenes, and it may not be so easy to decide whether the symptoms coming on several days or weeks after the reception of an injury are due to it or have arisen independently.

Generally, perhaps always, if the truth could be known, it would be found that the period of incubation, if it might be so called, is not entirely devoid of symptoms; a slight headache, vertigo on stooping, or perhaps a scarcely perceptible change in behavior or character, might be found if inquired after. These symptoms are, however, so unimportant in the opinion of the patient as not to be noticed, and unless direct questions are asked on these points they will not be known. With children, it may be impossible to learn whether such symptoms exist, and it is therefore important to be the more guarded in expressing an opinion as to the termination of the case.

The following cases illustrate the points to which reference has been made:

CASE I.—I was called, in January, 1870, to see a boy, about 5 years old, who had a fit. In November, of the previous year, he fell quite a distance from a sky-light to one of the landings, nearly twenty feet.

He was supposed to have struck his right thigh, and possibly his head. The thigh was bruised and tender, and he walked lame, and complained of his hip. He was nauseated for a few days after, and perhaps complained a little of his head, but not much. He played about as usual, and it could only be noticed that he was more excited and nervous than previous to the fall, and also was easily frightened. Otherwise, there were no symptoms following the injury, except that referable to the hip. A short time before I saw him, he was standing at the window, and suddenly, without warning, screamed loudly, lost consciousness, vomited, became stiff and slightly convulsed. When seen, he was lying on his back on a sofa, seeming to notice nothing, a slight amount of froth at the mouth, the muscles rather stiff, but there were no convulsions. He tried to vomit once. Ether was given by inhalation, and after a few whiffs he made motion to get away, crawling over to the other side of the bed, on which he had been placed. He would not talk nor recognize anyone. Enough ether was given to produce partial insensibility, and he was left to sleep. It was then learned that the previous evening he had eaten some canned peaches, which had fermented. The diagnosis under such circumstances was rather doubtful, but naturally the error in diet was considered as probably the cause of the fit. The prognosis necessarily depended upon the diagnosis. There was, however, a possibility of a connection between the fall and the fit, and therefore the chances in favor of recovery were not so favorable as they otherwise would have been.

The boy slept for a while, and then awoke apparently well. The father told me afterwards that the next time he urinated he suffered severely, crying out with the pain, but not losing consciousness. He was subsequently under the care of Dr. Bundy, who had previously attended the family, and from him I learned that cerebral symptoms appeared, and the child died, having apparently cerebral meningitis.

I was asked to examine the body after death. The head was the only part examined. The only disease found was inflammation of the meninges. There was a deposit of lymph covering the pia mater, limited to the right side, chiefly about the fissure of Sylvius and the fissure of Rolando, not extending beyond the median line, nor into the longitudinal fissure. The lymph

was chiefly deposited on the convex surface, and but very little at the base; the extreme anterior and posterior portions of the hemisphere were free. The vessels of the pia mater were a little fuller than usual. The cerebral substance was not materially changed, not softened, and there were no signs of contusion nor hæmorrhage into its substance.

In view of the limitation of the inflammation to that part of the right side of the head which was struck, it is reasonable to suppose that this lesion was caused by the fall, although there was an interval of two months between that event and the appearance of the first marked symptom.

Case II.—Henry B——, seaman on the United States Steamer Rhode Island, æt. 28, during March, 1863, while in the West Indies, received a blow on his head from a marline-spike, which fell from the fore-top. His head was bruised, and he had some headache at the time. April 1st, 1863, he found it difficult to speak; his tongue was inclined to the right side when protruded; he complained of headache. His hair was cut off, a blister applied, and counter-irritation was kept up. He improved so much as to be able to go to duty on April 13th.

April 21st, he appeared again, complaining of headache, and spoke with difficulty. Counter-irritation was renewed. There was no sensible improvement, and May 3d, he was sent North to hospital.

These are the only notes preserved of this case. As I remember the case, there was little or no inconvenience during several days between the reception of the blow and April first, when he applied for medical advice; the headache, which immediately followed the blow, not continuing long of sufficient intensity to make him refrain from duty. Probably, between April 13th and 21st, there were some remains of abnormal symptoms, which his pride, as a seaman, led him to disregard.

The following case is from a little work by Bryant:

Case III.—"Arthur B——, æt. 3, was admitted into Guy's Hospital in July, 1860, under the care of Mr. Birkett, but the treatment of the case fell into my hands. Shortly before admission, the child had fallen from a window, eight or ten feet high, pitching upon his head. He was taken up hastily, and brought to Guy's, when he became conscious, presented no external signs of injury, and no symptom of cerebral mischief could be detected. He was placed in a bed, and ordered to be kept quiet, as a precautionary measure, and everything went on well till the third day, when fever appeared, accompanied with vomiting, unconsciousness, and the peculiar scream so characteristic of cerebral irritation. The head was tilted back upon the spine, and the pupils were dilated." Under treatment he recovered.*

The following case, translated from the German, illustrates, even better than the preceding, the very serious results which may follow an injury, though at the time there is nothing in particular to attract the attention.

Case IV.—G. B. von R——, 29 years old, was received into the institution in February, 1858. There was unmistakable hereditary tendency to psychical disease. He had enjoyed good health, and was well developed. He had indulged in sexual excesses and masturbation. He had been married five years, was temperate in eating and drinking. In May, 1857, slight cerebral disturbance was caused by a blow from a carriage over the left parietal bone. In July, of the same year, he became irritable, passionate, violent, capricious, at the same time indifferent to surroundings, negligent in business. A week later, there was rapid loss of memory, especially for recent events; increasing thoughtlessness and wandering were seen in talking and writing. Finally, he could no longer form a single sentence, or add a simple column of figures, and he complained of his increasing mental weakness. There appeared, in October, a maniacal excitement in the form of purposeless, senseless activity, seeking after new projects, and a desire for travelling. At the same time, appeared motor disturbance (staggering gait, trembling, great muscular weakness), delirium with exaggerated ideas, which soon took enormous dimensions, and a considerable increase of sexual desire. * * * * * * During the spring of 1858, he improved considerably, and went home, having, however, still slight mental weakness, and slight motor disturbance. The improvement continued until the end of 1860. Increasing weakness of memory, absentmindedness, and imbecility, brought him back in February, 1861. In May, of the same year, he left, improved; he lived apathetic, imbecile and paralyzed till the spring of 1863, having many apoplectic attacks, meanwhile, in one of which in May he died.

The autopsy revealed the following interesting appearance:—

* The Surgical Diseases of Children. Thomas Bryant. London, 1863, p. 59.

The skull was difficult to saw; diploë unusually dense, almost free of blood. On the left parietal eminence was a nearly circular spot, about 1½ centimetres in diameter, over which the periosteum was very firmly adherent. Opposite this, the parietal bone was bent in, seemingly uniformly, like a sort of flat funnel. It was formed of compact, pale masses of bone, and was covered with many fine-pointed spicula of bone. The whole strikingly resembled an opening made by a trephine, which had been closed up by callus.

At the above mentioned spot, the inner side of the calvaria was adherent to the dura mater by a firm membrane, which could be torn from the dura mater. From this place, extending towards the median line, the membrane was opaque, thickened, and very resistent. About half a pint of reddish serum escaped when the dura mater was cut. In the longitudinal sinus were coagula. In the opaque and thickened spot of the dura mater, just opposite the left parietal eminence, and near the falciform sinus, stuck fast two irregular sequestra of the inner table. The points of these penetrated the membrane inwards. At this spot, especially in the course of the great veins, the arachnoid and pia mater were very dull, and covered with numerous pacchionian granulations. The vessels of the pia were swollen with blood; the pia was easily separated from the convolutions; only along the longitudinal sinus on both sides was the gray substance adherent. The remainder of the brain showed no change from the normal condition, according to the report of the autopsy.*

In the same monograph are several cases of a similar character. In one, a stable-servant, jumping from a wagon, struck his head against the wheel. For ten days, no symptoms were present, except some headache, and he kept at work. After ten days, he became restless and sleepless, and subsequently had mental disturbance and paralysis, and died in about one year.

Since commencing this article, I have seen a report of a case by Dr. Gibson, in the Edinburgh Medical Journal, September, 1870, which is of interest. A man, about sixty years old, was found in a state of coma, and in two days he died. There was no mark of contusion or violence on the body, but the left parietal bone was extensively fractured, without depression, and the left hemisphere was covered with a thick layer of firmly coagulated blood, which proceeded from the middle meningeal artery and the contiguous portion of the dura mater. It was learned subsequently that three days before that on which he was found, he had fallen down a long flight of stone steps, and was severely stunned. He soon recovered, and went about as usual, though somewhat confused, and complaining of his head now and then.

These cases are all of such a nature that there can be no doubt that the injury played an important part as cause of the lesion which followed. Occasionally, others occur, which give rise to a doubt as to how far the injury has acted as a cause. These are always of a more chronic character, and the cerebral disturbance often shows itself in one of the forms of insanity. If several years have passed in comparative health after the accident, it may be difficult at first to establish the connection between the two. Cases of epilepsy are sometimes of this nature. It is particularly important, under such circumstances, to inquire minutely into the history of the patient, to learn his intellectual power, and his disposition and character previous to the injury; to discover whether there has been any change, whether he has become, during the interal of apparevnt health, irritable, morose, unkind, or whether the opposite is true, and he has become more gentle and quiet; whether there has been any loss of mental power, or a condition of restless activity and sleeplessness; whether there has been an increased tendency to congestion of the head; in short, the most trivial and seemingly unimportant particulars are to be investigated. If any change has been noticed, the date of its commencement must be fixed; not the date at which it became so marked as no longer to be concealed, but the time when the earliest and scarcely perceptible change occurred. It may be found that this change was coincident with the receipt of the injury, and the diagnosis is then easier.

With all the care possible there will be cases where a doubt arises as to the extent to which the previous injury has served as cause of the subsequent condition. It is often such cases which come into court for adjustment of damages, wherein doctors, lawyers, judges and juries, have scope for the exhibition of skill, rhetoric and patience. In such cases, frequently, the chief question is, as to how far emotional and slight psychical changes, which incapacitate for the continuance of one's ordinary occu-

* Ueber die durch Gehirnerschütterung und Kopfverletzung hervorgerufenen psychischen Krankheiten. Dr. R. v. Krafft-Ebing. Erlangen. 1868. P. 20.

pation, are due to the accident, and to what extent the damages should he assessed. This is a branch of the question which it is not intended to pursue.

SIMPLE METHOD OF MEASURING THE SPECIFIC GRAVITY OF SMALL QUANTITIES OF URINE.

Mr. Editor,—We not unfrequently see, in an otherwise complete report of the condition of a specimen of urine, "quantity too small for the specific gravity to be measured," or words of similar import. A simple method has occurred to me by which the specific gravity of an extremely small quantity of urine may be obtained with sufficient accuracy for all practical purposes.

Suppose the quantity to be examined is half a fluid ounce. Add to this, say four times its bulk, or two fluid ounces of water, and take the specific gravity of the mixture. Suppose this to be 1004; the specific gravity of the urine will be 1020. The reason of this will be obvious; for we have in the mixture four parts of water at 1000, and one of urine for the fifth, to which any surplus above 1000 belongs; of course, if the water were replaced by an equal quantity of the urine, four other volumes of the surplus specific gravity would be added, and the specific gravity of the whole would be five times as great. Hence the following rule:—

Add to the quantity of urine to be examined as many equal volumes of water as may be necessary to float the scale of the urinometer. Multiply the excess of the specific gravity of the mixture above 1000 by the whole number of volumes employed, add it to 1000, and the result will be the specific gravity of the urine.

So simple a method as this can hardly fail to have occurred to many persons who have been engaged in examining urine, but I do not happen to have seen it mentioned in any of the books at hand, perhaps for this very reason. On the other hand, I have so often known the important fact of the specific gravity to be left out of a report on a specimen of urine for the want of enough to fill the urinometer, that the simple rule above given may not be without value to some of your readers. S. L. A.

ON THE GELSEMINUM SEMPERVIRENS.

By E. P. Hurd, M.D., Newburyport, Mass.

The yellow jessamine is becoming favorably known among regular practitioners. First brought into notice by the Eclectics, it has been proved to possess properties which render it of great value as a medicinal agent.

Having been in the habit, for some time, of using a tincture of the root in my practice, I can from experience speak confidently in its favor. I believe that, as a cardiac sedative, we have not its equal in the whole range of the materia medica. It relieves in a marked manner the shortness of breath and palpitations of all forms of heart disease. I have seen more prompt and decided benefit from its use in chronic valvular disease, than from digitalis. The dose may be three drops of the saturated tincture every two, three or four hours. A patient with aortic regurgitant disease, has been taking, for more than a week, three drops of the tincture every two hours. The relief from dyspnœa and palpitation has been wonderful. It sometimes produces a little giddiness or nausea; these are the only unpleasant symptoms from its use. There is a marked contrast between the present ease and comfort which the patient experiences, and her uneasiness and distress previous to commencing the remedy. The gelseminum is combined with Hoffmann's anodyne and tincture of lavender. The gelseminum is believed to have a specific effect on the vaso-motor nerves, stimulating them, and thus equalizing the circulation and lessening the labor of the heart. It also allays nervous irritability. I could wish that those of my *confrères* who have never used the jessamine would give it a trial. I believe it surer than veratrum or prussic acid, and safer than digitalis.

The Eclectics rely much on the yellow jessamine as a febrifuge. They give it in all acute sthenic febrile diseases where the antiphlogistic treatment is indicated. I question, however, whether as a febrifuge it has any advantage over veratrum viride, which is now so popular a remedy.

King, in his Materia Medica, speaks highly of the tincture of gelseminum as a relaxant in rigidity of the os, puerperal convulsions and dysmenorrhœa. The dose in such cases would be large.

The yellow jessamine is a native of the Southern States, where it is much cultivated as an ornamental vine. It has fine yellow flowers, smooth stem, and opposite, perennial entire leaves, growing on short petioles. The root is the officinal part. The active principle is probably its alkaloid, gelseminia.

DEATH FROM THE EFFECTS OF SULPHURIC ETHER [IN AN OVERDOSE.—Ed.].

By Walter Burnham, M.D., of Lowell, Mass.

In the autumn of 1862, after a severe skirmish, I was directed by a regimental surgeon, who was my superior officer, to administer sulphuric ether to one of his men, who had been wounded on the previous day, for the purpose of an amputation of the thigh just above the knee.

The wound was produced by a minié ball from the rifle of a sharpshooter, hid in the top of a tree. The soldier, at the time, was mounted and his foot was in the stirrup, with his knee bent upon the thigh. The ball struck him just above the patella, and passed through the condyles and out at the popliteal space, dividing the bloodvessels and nerve.

The assistant surgeon, who stood almost at his side, at once filled the wound with persulphate of iron and lint, and secured it with a tight bandage. The hæmorrhage ceased immediately, so that the bandage was scarcely stained. The patient was then taken directly to the regimental hospital, about one mile distant, where he had good care till the next morning; he was then placed upon the operating table in order to have his limb amputated.

He was a stout-built German and could not speak English, so I could not converse with him; but he was reported to have rested well during the night with a single Dover's powder; his countenance looked well, his pulse was full and strong, not above 80 per minute. He had no symptoms which indicated exhaustion or severe shock from the wound.

I have been thus particular in my description of him that the profession may judge correctly of the cause of his death. I should also remark that his heart was observed to act with great uniformity and strength during the whole night, and that he slept more than is common after such injuries. It was also noted that he had no symptoms of shock to the nervous system. Indeed, no fears were entertained of the slightest danger when he was brought into the operating room.

After the usual preparation for operating, I commenced giving him sulphuric ether (under a protest as to my preference, for I always use chloroform) with the same care and precaution which I always exercise in the use of chloroform; to wit, I placed a small napkin in a bowl to cover the face, and held it so that it could not touch the face or mouth, and poured about an ounce of ether upon the napkin, adding one or two drachms of ether every two or three minutes. It required, in my judgment, about ten (10) minutes to render him entirely insensible, which corresponded with his respiration and pulse. I then said to the surgeon that he was ready for the operation, and at the same time removed the bowl from his face. The tourniquet, which had previously been loosely applied, was then tightened; at the same time the patient appeared to be recovering from his state of anæsthesia, and the surgeon manifested some impatience that I had not continued to keep it to his face, declaring that there was no danger from the ether. But it required only a few seconds to restore complete anæsthesia, and the operation was at once commenced. I again removed the ether from his face, which the surgeon noticed and impatiently ordered me to renew it. I re-applied the napkin, with a drachm of ether freshly poured upon it. After one or two inspirations, the patient ceased to breathe, and I raised the napkin from his face. The surgeon reproved me for not *obeying* his *orders*, and again ordered me to "crowd that ether." I told him the man was not breathing well; but this increased his impatience. I told my superior I would give *ether* if he would make the man *breathe*, but that he was *dead*. He then, after I had stepped back, saw that I was correct, and softened down and said, "Dr., you are right."

The surgeon had not applied the saw nor finished the use of the knife when death took place. There was no hæmorrhage, or any other apparent reason for his death; but very soon after he began to inhale the ether his pulse was noticed to grow feeble by Dr. Bancroft, who was with me and called my attention to it; but the patient died so soon after, I did not examine the pulse afterwards.

The surgeon, believing that sulphuric ether could not produce death, was unwilling to admit that it was due to that cause in this case; yet he said he "did not see what else caused it," for he had seen no signs of anything like shock since the patient came into the hospital.

I have had a very large experience in the use of anæsthetics, but mostly with chloroform, and have seen many cases of suspended animation from both articles, and have used more than one hundred (100) pounds of chloroform; but this is the only case of fatal termination that I have ever witnessed. Yet I cannot perceive that there was any other cause connected with

this death than the effects of ether. And this was owing, in my opinion, to an idiosyncrasy which could not previously have been discovered. With the experience which I have had, ever since the use of anæsthetics, I cannot be charged in this case with being careless or overdosing.

[*Qui facit per alium facit per se.* Did not the surgeon, who ordered the renewal of the etherization, *overdose?*

We print the preceding with only this brief comment. We ask the advocates of chloroform in all candor whether this case were one of death from the *use* or the *abuse* of ether? If Dr. B. had had the sole charge of the case instead of being controlled by superior authority, would not the patient have revived when Dr. B., perceiving labored respiration, withdrew the anæsthetic? Was not the surgeon who ordered the prolongation of etherization under the circumstances responsible for the result? And mark this! Is not *death* too often the *first* sign of *suffering* from *chloroform* inhalation? The difference between ether and chloroform is this. With the former, when the respiration fails, stop the inhalation and the patient invariably revives—with the latter, do precisely the same and *sometimes* he does not.—Ed.]

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY. REPORTED BY F. W. DRAPER, M.D., BOSTON.

The Society met Saturday evening, October 29th, Dr. George C. Shattuck, the President, in the chair.

Dr. Cutter exhibited and described a vaginometer of his own invention, and read a paper detailing its uses. It consisted of a rod of the size of the ordinary uterine sound, at the extremity of which was a horizontal bar, about three-quarters of an inch long. By the combination of two of these with a hinge, a pelvimeter was practicable.

Dr. F. H. Brown spoke of the bedstead employed at The Children's Hospital, and exhibited the system of extension used at that institution for diseases and injuries of the lower extremities. The bedstead is one of the Tucker pattern, and is so made that the top of the mattress is at an elevation of 30 inches from the floor. By this increase of height over the bedsteads usually employed in hospitals, the care and dressing of patients, especially of children, are much facilitated.

The extension apparatus is intended to take the place of the more complicated and more expensive means usually employed for this purpose; it can be made by any carpenter, and adjusted to any iron bedstead having a footpiece; by a single movement it is attached to the bedstead, and as easily removed. It consists simply of a block of black walnut, supported from the upper rail of the bedstead by two hooks, resting against two of the perpendicular bars, and bearing on its under surface the pulley which carries the cord and weight.

Dr. Webber exhibited a specimen of typhoid ulceration of the small intestine, and read notes of the history of the case. The patient was sick twenty-six days; he entered the hospital after a week of diarrhœa and general malaise. He had worked previously about a wharf in this city. During the period of his sickness in the hospital, he had the various symptoms of typhoid fever—diarrhœa, gurgling in the right iliac fossa, insomnia and delirium; the fever, however, was complicated by certain thoracic symptoms, whose true import was not diagnosticated before death, one of the noteworthy anomalies being a marked irregularity in the rhythm and force of the respiratory movements.

The autopsy discovered the lesions of pleuritis, three pints of serum being removed from the left pleural cavity. The liver and spleen were enlarged in moderate degree. Nearly all of Peyer's patches presented ulcerations; in some, the mucous coat of the intestine only being eroded; in others, the muscular coat being invaded, while in a few the ulcer had penetrated to the serous layer without perforation.

Dr. Jackson observed that the marked discoloration of the ulcerations nearest the ileo-cœcal valve indicated comparatively a longer duration; he deemed it impossible, however, to form an absolute opinion as to the period of the disease from the mere physical appearances of the ulcerations. He thought, moreover, that two data should, if possible, be ascertained in determining the history of any case—the time the patient ceased from work, and the day he took his bed.

Dr. Abbot suggested that the case was apparently an illustration of the etiology of typhoid fever in exposure to foul emanations, and farther exemplified the theory by

cases in his own practice. He cited one case as originating in continued exposure to the foul air of a cesspool while it was being emptied by the city workmen.

Dr. Jackson mentioned cases in his knowledge exemplifying the same fact. He characterized the method of evacuating cesspools, at present practised in open day, as an abomination deserving the attention of the Board of Health.

Dr. Abbot said the blame belonged not to the Board of Consulting Physicians, but was due to the apathy of the city authorities.

Dr. Shattuck remarked that many cases of typhoid were occurring this season, with marked absence of abdominal symptoms.

Several members of the Society corroborated this observation.

Dr. Jackson thought gurgling in the abdomen, and especially in the right iliac fossa, received, as a general rule, more importance as a symptom than it deserved. He remarked, moreover, that complications in typhoid fever were rare, and the intervention of pleuritis, in the present case, was an anomaly. He further observed that the spleen, although subject to enlargement in this disease, generally recovers its normal size if the disease continues a considerable time.

Dr. Shattuck pointed out the occasional remarkable similarity in the respiration of typhoid fever and of meningitis.

Dr. Jackson had observed the same fact, and thought the resemblance was not an infrequent source of error in diagnosis.

Dr. Lyman raised the question whether with typhoid fever should be classed what is ordinarily known as "slow" fever, or what the older authorities characterized as "nervous" fever.

Dr. Knight thought the two fevers possessed distinctive characters.

Dr. Jackson would class both together. The cases called "slow" fever or continued fever were not fatal as a rule, and hence there was no opportunity to determine the extent of the characteristic anatomical appearances. The mildness or severity of the symptoms was not an absolute criterion by which to judge of the extent of those anatomical changes. He had once made the autopsy of a young girl who, during her sickness, had been dressed daily, so mild were her symptoms; she died from sudden hæmorrhage of the bowels, and after death the small intestine was found extensively ulcerated.

Dr. Webber thought it a point of practical importance to avow to the friends of the patient, in such cases, the diagnosis of typhoid fever, and thus secure the absolute rest which is so necessary in treatment.

Dr. Lyman said these were cases which always gave him anxiety, since the danger of intestinal hæmorrhage was never to be forgotten.

Dr. John Homans remarked that the lesion of the intestines was the real starting point from which to determine the typhoid character, and as it had been shown to exist in the few fatal cases of slow fever, he considered the proof of the difference of type rested with those who did not include the two in one class.

Dr. F. H. Brown exhibited a series of micro-photographs, prepared by Dr. J. J. Woodward, of Washington, D. C., and showing the microscopical anatomy of the capillaries.

Dr. J. C. Warren explained the method of preparing these specimens, the injection of a solution of nitrate of silver and subsequent exposure to light.

Dr. John Homans reported a case of chronic synovitis of the knee, of three months' duration, treated successfully by evacuating the joint by a fine trochar and afterwards painting the skin with tincture of iodine. [This case was published in the JOURNAL, Dec. 1, p. 354.]

Dr. G. W. Gay had tapped the knee-joint and then injected tincture of iodine, but without good result.

Dr. E. H. Stevens read notes of five cases of disease which a coroner's jury, summoned to investigate the causes of the sudden death of four of them, pronounced to be congestive bilious fever of a malignant type. They were all colored seamen; they were attacked almost simultaneously while at an ill-kept boarding house, after returning from sea-voyages. The disease was characterized by vomiting, extreme prostration, marked febrile action, and active delirium. Death was sudden, occurring in from twelve hours to two days. In the single case which recovered, there was opisthotonos, stupor, deafness, loss of memory; and a number of small papules, as of ecchymosis, were observed on the skin.

Dr. Lyman suggested cerebro-spinal meningitis as the true diagnosis, and remarked, further, that the limitation of the disease as to locality and the choice of its victims was characteristic.

The Society adjourned.

Selected Papers.

SOME ANOMALIES AND COMPLICATIONS OF SCARLET FEVER.

Notes of a Clinical Lecture by Prof. Oppolzer, Professor of Medicine in the University of Vienna.

In no disease do we meet with symptoms more anomalous than in scarlet fever. The intense fever which generally ushers in the eruption may be very slight or altogether absent, or sometimes gastric symptoms, as foul tongue, nausea, vomiting, may be the only forerunners of the disease, or a severe protracted angina may precede the eruption, which may after all be only partial, of pale red color, of short duration, and followed by only slight scaling. Scarlet fever *without eruption* is very rare, though the skin symptoms may be so slight as to be overlooked, and the true nature of the disease only suspected from after symptoms.

A more serious form of scarlet fever is that in which the fever sets in with severe headache and delirium, and is accompanied with great prostration, diarrhœa, and bloody stools, meteorismus, dry tongue, &c. The eruption is imperfectly developed, lasts a short time, and then recedes, and the whole form of the disease corresponds more with typhoid than scarlet fever. In more malignant cases a dusky discoloration takes place in various parts of the body, with petechiæ and ecchymoses, while hæmorrhages from the nose, mouth, bladder and rectum, are not uncommon. Such cases may be rapidly fatal. A low type of inflammation of the mucous membrane of the throat occurs in many epidemics. In such case, either before or during the eruption of the exanthem, the mucous membrane of the pharynx swells, the tonsils and uvula become enormously enlarged, the throat is narrowed, swallowing becomes impossible, and fluids regurgitate through the nose—morbid changes which may lead to extensive gangrene and death.

In many cases the inflammation terminates in profuse suppuration. The mucous membranes become covered with a dirty purulent exudation; extensive ulceration follows. The ulcers become covered with pus and the detritus of the tissue around, which give a most offensive odor to the breath. The inflammation extends to the glands of the neck and the lymphatics beneath the lower jaw, which become enormously swollen. If the character of the epidemic be malignant, then swellings may rapidly suppurate, open, and involve a large destruction of surrounding tissue. In many cases, especially in children, these symptoms are accompanied by convulsions, coma, a very small, weak, thready pulse, and death in a few days. In more favorable cases the swelling subsides, and the ulcers heal.

In severe epidemics the inflammation of the mucous membranes may assume a diphtheritic type and extend over the nares. The fever is then very intense, and of a *typhoid* character. The mucous membrane of the throat and mouth is covered with a diphtheritic membrane, with profuse serous very offensive discharge from the nose. The false membranous exudation quickly breaks down, and intense head symptoms—headache, coma, convulsions—set in. Inflammation of the salivary glands, and the lymphatics in the neck, with inflammation of the cellular tissue of the neck, is observed more frequently in scarlet fever than in any other febrile disease; generally the eruption is full, and the fever runs high. Not unfrequently extensive and diffuse inflammation of the cellular tissue and glands in different parts of the surface of the body occurs; and this may assume a most dangerous form if the inflammation involves the more internal parts; for instance, the structures behind the pharynx. Oppolzer has seen many cases of retro-pharyngeal abscess obstructing the gullet, and preventing the patient from swallowing. In one case there was extensive sloughing of the cellular tissue of the right inguinal region in a boy twelve years of age, leading to erosion of the bloodvessel, and hæmorrhage.

But affection of the kidneys is the most frequent complication of scarlet fever. It may occur either early or late in the course of the complaint; and generally leads to anasarca or dropsy, usually about the third week of the disease. Nephritis may come on very slowly and gradually, and is *sometimes* only recognizable by careful examination of the urine.

In other cases nephritis ensues with high fever, great debility, vomiting, and sometimes diarrhœa. The lumbar region becomes tender; the urine scanty, cloudy, brown-red, and containing red blood-cells; its specific gravity generally high, and containing albumen in greater or less quantity. Characteristic of the complaint is the appearance of casts of the kidney tubes. But there are cases in which the first symptoms of nephritis occur *in the beginning of*

the complaint, and only a few days after the eruption, though the urine is neither diminished, nor yet contains blood or albumen. Affection of the kidneys may result in ascites, anasarca, or serous effusion into the different cavities of the body, or these symptoms may be absent, and the disease show itself by the presence of convulsions, coma, and paralysis, as the consequence of uræmia.

A great difference in the character of the urine is observed *during the development*, and during the course of scarlet fever.

During its development albuminuria very seldom occurs. Yet even then a very careful examination may detect degenerated epithelial cells in considerable quantity with some blood and casts. These symptoms point to catarrhal affection of the urinary tubes, and in a great number of cases are absent. In the clinique, cases have often been observed, in which at the commencement of the disease the urine has been quite clear, and yet, on standing a short time, a soft, opalescent, mucous cloud has formed, which, under the microscope, was found to consist, for the most part, of epithelial cells, and, sooner or later, substances like casts. But *similar* appearances are found in the urine *in other acute diseases*—viz., in pneumonia, meningitis, typhus, acute peri- and endo-carditis, measles, &c.; and, with regard to them, we can only say that, in many acute febrile diseases, a metamorphosis of the tissues of the internal organs takes place, especially of the epithelial cells, which become detached and loosened. This is especially the case with the kidneys. The question is still undecided, whether these deposits in the urine are merely the result of the fever, or are a specific product of the scarlet fever process. But it may be said, in cases where the scarlet fever occurs *without any feverish symptoms*, that these changes are not found in the urine, and are generally absent in slight cases of the malady.

In the case of the boy, aged 10, whose case we have lately observed, a copious urinary deposit was seen during *the first two days of the eruption*, but a microscopical examination gave no result. On the *third* day of the eruption, however, there was observed a mucous clouding of the urine, which, under the microscope, was seen to contain a few cast-like bodies, extremely transparent, and provided with fine grey granules, with isolated cloudy epithelium of the mucous membrane of the tubes. It was curious that in this case distinct traces of albumen were first found on the fifth day of the disease in the form of an opalescent layer, which continued without change, and without increasing, for eleven days. Since then the urine has been quite normal. In this case the fever was severe for two days, and the urinary deposits may have been the consequence of this, and not the result of a specific change.

In cases of scarlet fever in which sooner or later some complication of the kidneys takes place, sensitiveness of the lumbar region is observed: either real pain or tenderness on pressure.

Dropsy.—There is much variation in this symptom. It begins usually in the face and eyelids, and spreads over the whole surface of the body; in the acute cases it reaches a considerable degree, and is accompanied by increased temperature of the skin, but in the more chronic forms of nephritis the dropsy comes on gradually, and is less extensive, the urine of a whitish yellow color, thick, opalescent, and its specific gravity is diminished.

In many cases *serous effusion* takes place into the different cavities of the body; *more rarely* into the interstitial tissue of the lungs, when it may be mistaken for pneumonia. In one case, Oppolzer witnessed an *enormous* œdema of the scrotum, and in another, serous effusion into the tunica vaginalis testis.

Œdema does not occur in all cases of nephritis scarlatinosa with albuminuria; the dropsical symptoms are often absent in very acute cases, but other serious symptoms supervene instead—viz., collapse, nausea, vomiting, coma, convulsions;—symptoms which depend upon uræmia.

In one case only has Oppolzer seen a very rare complication of scarlet fever—namely, *transitory paralysis*—which doubtless depended upon serous effusion into the meninges of the spinal cord.

Serous effusion into the lungs is indicated by severe fits of coughing, dyspnœa, and cyanotic face. The œdema involves a whole lobe, so that the percussion note is dull, and numerous consonant râles are heard. The patient in these cases may die asphyxiated, delirious, or comatose; or the exudation may be absorbed, and recovery take place.

Nephritis is observed *frequently* in some epidemics, *seldom* in others. Sometimes it supervenes with very acute symptoms at quite an early stage.

The *eruption* varies very much. Sometimes the inflammation of the skin is between the cutis and epidermis, and sometimes during the eruption exudation takes

place into the cellular tissue of the cutis, causing more or less swelling. In some parts the exudation may collect in considerable quantities, and cause the epidermis to be raised into bladders.

The *blood* in scarlet fever has not been found to differ from the blood in other acute diseases.

The *pathological* changes of the internal organs are very various after scarlet fever. Hyperæmia of the brain and its membranes, and sometimes granulations on the meninges, are found in cases where the head symptoms have been severe. The mucous membrane of the throat, uvula, and tonsils, is usually found ulcerated, sometimes covered with false membranes. The parotid and submaxillary glands with surrounding cellular tissue, are often found swollen, infiltrated, and inflamed; and there is hyperæmia and enlargement of the parenchymatous organs.

If the scarlet fever has been complicated with Bright's disease, œdema of the whole body and serous effusions into the serous cavities are found. The kidneys are hyperæmic and swollen; their cortical substance has a granular look; and in the urinary tubes are found casts and blood, with fatty degeneration of the epithelial cells.—*Medical Times and Gazette.*

Medical and Surgical Journal.

Boston: Thursday, December 8, 1870.

ARSENIC IN THE TREATMENT OF DIABETES.

A new remedy for the treatment of diabetes has been introduced in France. In the *Gazette Hebdomadaire* for July 22d, its claims are thus commented on:

"We can now apply to arsenic that which has been said of fire as a therapeutic agent—'It cures what nothing else cures.' It grapples hand to hand with diabetes, and pretends to bring about recovery more surely and more quickly than any other means. Although the merit of its introduction belongs to MM. Devergie and Foville, its first application was the result of chance. A woman, with diabetes, was taking arsenic for the relief of a pruritus of the vulva; and it was observed that both diseases disappeared together. Farther experiments were made on diabetic patients who had no skin diseases, and the same favorable result followed. These results are incontestable, and are worthy the attention of the profession. One observer, in affirming that he has cured by arsenious acid, and properly regulated diet, certain cases of diabetes which were still well nourished, has perhaps indicated the exact limits of the good effects of arsenic. Its utility within these bounds would be easily appreciated. Diabetes does not quickly reach the consumptive stage, and when it has reached that, there is nothing more to be done. Is it not, however, a great gain that an agent is found to arrest, in its early period, this fatal progress?

"How does arsenic act in these cases? The vaso-motor system could hardly fail to answer this query, the restoration of its vitality and a consequent toning of the circulation of the skin being adduced as the mechanism of its action. The observers quoted hold, however, to the verification of the therapeutic facts rather than to their theoretical interpretation. They make use of Fowler's solution, prescribing it in a dose of one drop, morning and night, the first day, and increasing the dose daily by one drop until it is six or seven. This maximum is continued, with an interruption from time to time, and after these short intervals of rest the treatment is resumed with half the last dose. One thing is omitted, however, in their observations—the duration of the treatment. Is the limit indicated by signs of arsenical saturation of the system, or by the disappearance of the sugar from the urine? Is there a chance, by continuing the treatment, of preventing the reappearance of the diabetes? It would have been well to have settled these points beyond a doubt or an uncertainty. Nevertheless, we hail this new remedy with pleasure. Perhaps it might be well, once the therapeutic fact is established, to unite the use of arsenic with animal diet and the alkalies, the two methods which, as palliatives, at least, have given thus far the most favorable results."

RESIGNATION OF CONSULTING PHYSICIANS.

We are not surprised at the spirited action of three members of the Board of Consulting Physicians of the city of Boston in

tendering their resignation of office. It is the natural sequence which might be looked for, when we consider the apathy of the city government in the very essentials of sanitary health. Warning after warning has been uttered by the board without the slightest move being made to correct nuisances and abuses; important questions of sanitary science, and threatenings of the invasion of contagious diseases, have frequently come up and been summarily decided, without reference to a board which has in an eminent degree the respect of the profession, if not of the political Board of Health.

Open vaults, unprotected scavengers' carts, bone nuisances and filthy tenement houses send up to an avenging Nemesis an odor savory to her nostrils—but not of incense—and add daily fuel to the sacrificial fire which, in the summer months, consumes so many from our poorer classes. We would remind our brethren of the consulting board, that the Greek goddess whose rôle is put down as "a personification of the moral reverence for law, of the natural fear of committing a culpable action, and hence of conscience," has no shrine at the Temple of our City Fathers, especially at that season of the year when the gentlest mutual titillation of the muscles of the back is found to be the most appropriate "manipulation" for those laboring under fear of official dislocation.

We reproduce the letter of Drs. Derby, White and Ingalls, as expressing *our* sentiments.

"*To the Mayor and Aldermen, Health Commissioners of the City of Boston:*

The undersigned, members of the board of consulting physicians of the city of Boston, herewith respectfully present their resignation of the office to which they were chosen in February last. They had hoped that this office might be one of active usefulness, but they find it a sinecure. On the 14th of April, after consultation with the city solicitor, a communication was made by the advisory medical board to the health commissioners of the city, calling their attention to the sanitary condition of Boston, and suggesting certain measures of practical importance for the action of the department of health.

"The communication was referred by the board of aldermen to the committee on health. Receiving no reply to this letter, and seeing no evidence of any attention being given to it, the consulting physicians addressed a note, on the 7th of June, to the chairman of the health committee, asking if any additional measures for securing the health of Boston were contemplated. An answer was received from the clerk of the committee, stating that an inspection of tenement-houses had been ordered, and that when completed the result would be communicated to the consulting board. Since that time, however, no report has been received, although the newspapers have stated that such inspection was completed. On several occasions during the past season, events have occurred threatening the health of the city, but no reference of these or of any other subjects has been made to the consulting board. Other matters having a direct bearing upon the maintenance of public health besides those referred to in their letter of April have been considered during the summer by the board of consulting physicians, but it was felt that, under the circumstances, it would be useless to offer advice concerning them.

"During the year 1870, the sanitary state of Boston has not improved. The streets and alleys and passage-ways and back yards are still dirty. Vaults are broken and overflowing. House offal, during the hot season, has been kept in and about the houses until putrid. Unsound provisions are freely sold. The tenement-houses are a disgrace to Boston, and, from a recent examination by one of our number, they are reported to be in no better condition than one year ago. Five hundred children have died from cholera infantum in Boston during the past summer. When public property is at stake, professional advice is sought for its protection; when public health is in danger, there seems to be equal reason for taking counsel of the medical profession, and this policy is recognized in nearly every great city of the world. In Boston alone the interests of public health are made a branch of the business of street-cleaning, and the advice of its consulting physicians is not asked, and when volunteered is rejected as of no value. A continuance in office under such circumstances would seem to the undersigned to be wanting in respect to the profession to which they belong.

"Regretting their inability to take part in a much-needed reform, they beg leave to retire from any participation in or re-

sponsibility for a state of affairs which they have no power to amend.

(Signed) GEORGE DERBY,
JAMES C. WHITE,
P. P. INGALLS.

BOSTON, Dec. 3, 1870."

ON THE DECUBITUS IN PHTHISIS PULMONALIS. By ROBERT W. FOSS, M.B., Edin., late Resident Clinical Assistant at the Hospital for Consumption, &c., Brompton.—It is an interesting fact that in many one-sided inflammations in the chest the decubitus is on the affected side, of which there is a satisfactory explanation in the hypothesis that the other side has to do double work, and so by this means its expansion is made the easier. In phthisis pulmonalis, on the other hand, the reverse is the case, the decubitus, instead of being on the most affected, is on the least affected side. Louis, speaking of this latter phenomenon, says, "This circumstance may consequently aid the observer without the use of auscultation or percussion in ascertaining which side of the chest is most affected."

I have examined fifty-eight cases of undoubted phthisis, and found that in forty-seven the decubitus was on the healthiest side, in three on the most diseased side, and in eight it was not affected at that particular time. Of the eight in whom the decubitus was not affected, five had double cavity, one had passive one-sided cavity, and two had crepitation to about an equal degree at both apices, so that in seven the disease was equal on both sides and in the eighth it was passive. In several of these cases at one period of the disease the decubitus had been solely on one side; but as it progressed and affected both sides equally, then the decubitus became dorsal, or finally abdominal.

Of the forty-seven whose decubitus was on the healthiest side, the disease in all was advancing with more or less rapidity. Of the patients who could lie on the most diseased side the disease was in a passive condition at the time; but in one of them soon afterwards active symptoms, as hectic, &c., set in, and then the decubitus was on the least affected side, so that it may be said that during the absence of active symptoms the decubitus is not so much interfered with, but that, as soon as they appear, where one side is more affected than the other, then the decubitus will be on the least affected side. This fact is interesting when taken in relation with the hectic flush, which is usually said to be greatest on the most affected side, so that we see the patient lying on the healthiest side, with the greatest flush on the opposite cheek—two things, when taken together, quite diagnostic of the most affected side—viz., decubitus=healthiest side, greatest hectic flush=cheek corresponding to most diseased side. In nearly all the cases there was softening on one or both sides, and until this process took place the decubitus was normal. There are two ways of accounting for this one-sided decubitus, neither sufficiently comprehensive, however: first, that by lying on the diseased side the abnormal secretions are emptied with greater difficulty; secondly, that the weight of the superincumbent viscera causes the increase of cough and pain complained of. In forty of the fifty-eight cases the left was the most affected side, bearing out the general rule.—*Medical Times and Gazette.*

DIVISION OF PATELLA. By JAS. S. KNOX, M.D., Somerville, N. J.—On the afternoon of July 3d last, I was called to see a healthy young German, æt. 23, who, while felling trees, had been struck by a descending limb, and had the blade of his axe driven into his right knee. On examination, I found an incised wound over the knee, the length of the blade of the axe, dividing the patella obliquely across from right to left, but sparing both quadriceps and patella ligaments. In dressing the wound, the two parts of the patella were turned aside, exposing the whole interior of the joint, with its smooth articular surfaces; clots were washed out with cold water, the bleeding of articular branches checked by torsion, the parts accurately co-adapted, and stitched together by close interrupted suture. A straight splint was then applied behind the joint, a saline cathartic administered, and the knee kept drenched thoroughly in ice water, for three days, until all heat and swelling had disappeared. There was no synovitis, or suppuration, nor was pulse ever above 80. The wound healed rapidly, the patella uniting by osseous union. In three weeks, the splint was removed, and in nine weeks the patient danced most of the night at a Dutch ball, without inconvenience or perceptible limp. The scar is, now, the only sign of a serious injury.—*Transactions N. J. Med. Society.*

FRACTURE OF THE STERNAL EXTREMITY OF THE CLAVICLE.—Dr. Robert W. Smith sums up an article on fracture of the Sternal Extremity of the Clavicle, in the *Dublin Quar-*

terly Journal, for August, with the following conclusions:

"1. In fractures of the acromial extremity of the clavicle, between the coraco-clavicular ligaments, when displacement occurs, it is in general limited to an alteration in the direction of the bone, by which the natural convexity of this portion of the clavicle is increased.

"2. In cases of fracture between the trapezoid ligament and the sterno-clavicular articulation, the displacement of the outer fragment is considerable, and is frequently carried to such an extent that the fragments form a right angle with each other.

"3. The doctrine of non-displacement in intra-rhomboid fractures has not yet been established upon so secure a basis as to justify its acceptance as a truth.

"4. In intra-rhomboid fractures the displacement of the sternal fragment, if it ever occurs, is the exception; that of the acromial fragment, to a greater or less extent, constituting the rule.

"5. The explanation is, that the former is firmly connected by strong ligaments to fixed and immovable parts, while the latter is under the influence of three causes of derangement of position, viz., muscular action, the weight of the upper extremity, and the mobility of the scapula.

"6. The influence of these causes in producing displacement of the outer fragment is not confined to intra-rhomboid fractures.

"7. In fractures of the inner extremity of the clavicle the nature of the derangement of the acromial fragment is uniform, and its direction constant, viz., forwards. The first rib offers a mechanical obstacle to its displacement backwards.

"8. The rhomboid ligament, from its direction, would permit of the outer fragment being displaced forwards and downwards, to a limited extent, were the bone broken internal to it."—*Michigan University Medical Journal.*

On the Air in Workshops.—The *Bowdoin Scientific Review* contains an article from Dr. Sigerson, in which he says of the air of iron works:

"Although a quantity of this iron, carbon and ash, must daily pass in and out of the lungs, and besides, although a certain percentage must remain in them (as shown by Pouchet's dissections and Prof. Tyndal's experiments), it is difficult to find a healthier body of men than those who work in such factories. Dr. Sigerson observed one exception, a young man whose lungs were weak, and who had suffered from blood spitting, with cough, contracted in an American foundry, where the heat was excessive. He inquired whether the atmosphere heavy with dust did not affect him injuriously. The artisan replied in the negative; he said that he found himself well in it, his cough coming on at home on rising and lying down. These facts seem to indicate that the carbon poured into the air of cities from gas-lights and fires may not have so injurious an effect as sometimes fancied.

"In the air of a shirt factory, fine threads and fragments of cotton and linen were found, with a few ova which were translucent. In this factory the girls had become snuff-takers.

"In the air of an oatmeal mill, fibres were seen present in unexpected numbers, together with minute fragments of the hull and a few starch granules. Some spores and acari were detected. Near a threshing mill some smut balls were found in the air.

"The air of flax mills was found to be especially deleterious. Fine particles of the flax, together with pointed particles of the hard bristly wood tissue, so that direct injury was done to the lungs by these, and concretions formed by the filaments. The mill people were great sufferers.

"The air of printing offices contains minute particles of metal, particularly antimony. Dust taken from a rafter eleven feet above the floor of a printing office was analyzed by Professor Sullivan, and found to contain antimony but no lead.

"The air of a hair-dressing room contained scales and minute hairs. In rooms where the machine brush is used the amount is increased.

"The air of the dissecting room contained fragments and fibres with the mark of the dissecting knife upon them! They were fibrils of muscles, yellow and white fibrous tissue, some cells, scales and corpuscles. The air of stables was found to contain moth scales, a few spores, hairs and fragments tinged blood-red.

"Tobacco smoke, examined by the microscope, was seen to hold little globules of nicotine twirling and flitting about in it. The statement is made by Dr. S. that 'some remained on the walls of the mouth; when the smoke is breathed (by novices) more globules are retained in the lungs, and nausea and illness supervene. These globules, if found in the air distributed by a tobacco smoker, might be taken for germs.'

"The air of the rooms of 'tea-tasters' was examined, but no report is given. An interesting observation, however, in regard to the avocation of the tea-taster will be quite new to our readers. The tea-taster has to take a sip with a quick inhalation, and thus a small shower of fine tea-drops enters the lungs. On examination of such tea-drops, a considerable quantity of tissue from the leaves was found, which might aid to tease the lungs. But the real agents of mischief were numerous little drops of essential oil, very plentiful in Assam tea, which was particularly severe on the tea-tasters. Nausea, derangements (or as Dr. S. says, dis-arrangements) of the nerves and sometimes syncope afflicted them.—*The Medical and Surgical Reporter.*

Death from the use of Chloroform in Dental Practice.—The following is copied from the *Dental Register* of Cincinnati, and is addressed to the editor of that periodical by Dr. E. C. Hamilton, of Washington C. H., Fayette Co., O., under date of October 5, 1870:

"*Dear Doctor:*—Another victim to chloroform paid the penalty in my office on Thursday last.

"Mrs. Garis, the wife of our county sheriff, came to my office on Thursday afternoon for the purpose of having three roots and one molar tooth extracted. Dr. I. G. Wilson, a physician of this place, was with her, to administer chloroform. After I examined the mouth, and laid out the necessary forceps for the operation, Dr. Wilson proceeded with the chloroform, and after administering probably ten minutes (he did not intend to put her entirely under its influence), he called to me to take out one tooth. I then extracted the root of the right superior lateral incisor, only about one-fourth of an inch in length, and attended with no difficulty whatever. The patient then asked for more chloroform, and the Doctor was on the point of giving it, when death ensued. Three physicians worked probably three hours to restore life, but all in vain.

"These are the facts in the case. Three of our medical gentlemen, who use chloroform extensively, attempted to charge upon 'the shock of extraction' as the cause of death, but the people so ridiculed the idea that they abandoned it. Of course all who are acquainted with the facts attach no blame or responsibility upon me, as it is well known that I have invariably refused to use chloroform, and have advised in every case against its use in dental surgery.

"I make this statement to you so that you may know what the facts are, and not be misled by newspaper statements, in case you desire to refer to the case in the Dental Register."

The Meteorology of November, 1870.—The mean temperature of the month of November at New Haven, Ct., was 43.3 degrees, which is three degrees above the average temperature of this month. The highest temperature of this month was 62.7 degrees on the 9th; the lowest was 26.1 degrees on the 17th. The range of the thermometer for the month was 36.6 degrees, which is nine degrees less than the average range for this month at New Haven.

The mean temperature of the past eleven months has been more than two degrees above the average of the same months for the past ninety years; and the mean temperature of the past seven months has been three degrees above the average temperature of those months. So great a departure from the average temperature, continued for so long a period, has not occurred before at this place for more than a century.

The amount of rain for Nov. was 2.80 inches, which is nearly an inch less than the average fall for that month. The entire fall of rain for the last ten months has been nearly thirteen inches less than the average fall of that period.—*Hartford College Courant.*

Amputations at the Pennsylvania Hospital.—From a "Statistical Account of the Cases of Amputation performed at the Pennsylvania Hospital from January 1st, 1860, to January 1st, 1870, with the Mortality following this Operation in the Hospital during a period of forty years," by Thomas George Morton, M.D., one of the Attending Surgeons, Surgeon to the Wills Ophthalmic Hospital, &c., we make the following extract. It follows the statistical tables of the ten years' operations, as published in the October number of the American Journal of the Medical Sciences, and their classification and results.

"Adding these results," Dr. M. says, "to the statistics of amputations performed at the hospital during the previous thirty years, published by Dr. Norris (and to whom I am indebted for notes of several of the years), we find that in 749 amputations, upon 735 patients, performed during the

forty years from 1830 to 1870, 548 were cured, and 186 died, and 1 removed.

"500 were primary operations, performed during the first twenty-four hours after receipt of the accident, of which 117 died; 105 were secondary, of which 42 died; 144 were for disease of a chronic character, of which 27 died.

"232 of the patients were under 20 years of age, of whom 206 were cured, and 26 died; 217 were between 20 and 30, of whom 164 were cured, and 53 died; 152 were between 30 and 40, of whom 105 were cured, and 47 died; 87 were between 40 and 50, of whom 56 were cured, and 31 died; 44 were upwards of 50, of whom 23 were cured, and 21 died.

"Ether has been almost invariably used as the anæsthetic, and no death has, I believe, ever occurred in the hospital from its use; occasionally ether has been combined with chloroform; one sudden death (Case 165), however, occurred with the use of this mixture, during the removal of a fragment of necrosed bone following a leg amputation; the nitrous oxide gas I have used in very many minor operations, and in eight amputations of limbs, and have found it satisfactory when the operation was not prolonged."

Fatal Obstruction of Intestine from Disease of the Pancreas. By Henry F. Nathan, Assistant Surgeon Royal Naval Hospital, Malta.—W. G., aged 25, private in the Marines, was received into the Royal Naval Hospital, Malta, on April 11th, with a history of having been on the sick list of his ship for nearly a fortnight with catarrhal symptoms, and great debility, succeeded a day or two before admission into hospital by gastric irritability, foul tongue, nausea and constipation. When received into this establishment there was much nausea, tongue thickly coated with yellow in the centre, red at the tips and edges, a small weak pulse, constipation, incessant hiccough, and a tympanitic abdomen, the fulness being especially marked in the epigastric and upper half of the mesogastric regions; but no pain or tenderness anywhere. A few hours afterwards vomiting commenced, the matter vomited being in large quantities, stringy, thin, brownish, and of a strongly acid reaction. As the case progressed the hiccough was constant, the bowels acted at first after injection into the colon by means of a long flexible tube, and subsequently enemata of beef-tea returned laden with fœcal matter, the emaciation and debility increased, vomiting was always present, the ejected matter being of the character described above, and loaded with torulæ, but never stercoraceous; and what is rather remarkable is, that throughout the case there was no pain or tenderness in any part of the abdomen, the urine was secreted pretty freely, but was albuminous, which probably depended on renal disease, and there was no jaundice. The patient retained his senses to the last, but finally sank, apparently from exhaustion, at 8, P. M., on April 15th.

Necropsy.—On opening the abdomen the stomach was found greatly dilated, the omentum healthy, but here and there were small coagula of blood, caused by capillary rupture. The pancreas was much enlarged, and its head greatly indurated, almost possessing a mortar-like feel. The canal of the duodenum in the lower half of the descending portion was entirely closed by the pancreatic pressure, its coats were much thickened, its mucous membrane swollen, and intensely congested at this point. The lining membrane of the upper part of the duodenum, and of the stomach, although slightly congested, were healthy. The liver was somewhat fatty, and pushed up towards the thorax. The kidneys were enlarged, and in the first stage of fatty degeneration. The gall bladder was distended.—*Med. Times and Gazette.*

The Simplest Form of Micro-Telescope.—At a field meeting of the Albany Institute, held in Hoosic Falls, on the 24th of September, Dr. R. H. Ward, of Troy, N. Y., exhibited a simpler form of micro-telescope than has hitherto been proposed. He screws an ordinary 4-inch objective (5-8 inch wide, 2 3-4 inches solar focus) into an adapter (about two inches long) below the stage of the "seaside," "clinical," or any other hand-microscope. To this object-glass the compound body, with all its lenses, acts as an erecting eye-piece, as in Tolles's telescope and Curtis's micro-telescope. Of course, no one would expect from a 5-8 inch opening the light of a 1-inch opening; but the new arrangement gives a really useful field-telescope without requiring a single addition to the microscopist's apparatus. Solid (single combination) objectives act best as erectors in this case, but the ordinary objectives, from 2-inch to 1-2 inch, answer very well.—*The American Naturalist.*

Deaths by scarlatina, in London, last four weeks—192, 167, 174, 150 successively.

Medical Miscellany.

THE DANGERS OF IRON IN PHTHISIS.—M. A. De Beaufort calls attention, in the *Bulletin de la Soc. de Pharm. de Bruxelles*, to the danger of administering perchloride of iron for the arrest of hæmoptysis in tuberculous patients, on account of its coagulating action on the blood. According to the writer, this drug creates additional vascular obstructions; fresh capillary embolia; new foci of caseous pneumonia; so that a patient whose case was not very serious before the use of the salt, may die within a few days of asphyxia, or have the gravity of his condition greatly increased. M. De Beaufort would, for the same reasons, forbid all ferruginous preparations in the treatment of consumptives, most of them possessing coagulating properties. In this way, also, may probably be explained the fact, doubtless familiar to every practitioner, that persons subject to "piles" can seldom take iron for any length of time without provoking the formation of one or more hæmorrhoidal tumors.—*Medical Gazette.*

SCALPED BY INDIANS.—The following case is reported by Dr. R. C. Moore, in the Transactions of the Nebraska State Medical Society for 1870:

William Thompson, an employé of the Union Pacific Railroad Company, was scalped by the Cheyennes, near Plum Creek Station, Nebraska, on the night of the 6th of August, 1867. He was placed under my care on the morning of the 8th, about 36 hours after the wounds were inflicted. The scalp was entirely removed from a space measuring nine inches antero-posteriorly, and seven inches laterally; the denuded surface extending from one inch above the left eyebrow, backward nearly to the occipital protuberance, and laterally from one temporal region, over the vertex, to the opposite. The pericranium was in places detached, but the greater portion of that membrane was dried and adherent to the bone. There was also a severe tomahawk wound of the right parietal bone, the fissure extending backward, and downward in the diploe, to the depth of an inch and a half, splintering the external table, but producing no injury to the internal. I also found a slight gun-shot wound through the fleshy part of the right arm. The only dressing used during the whole course of treatment was surgeon's lint, saturated with pure olive oil, which excluded the air, and was easily removed for the purpose of cleaning the wound.

Healthy granulations soon appeared on the tissue surrounding the denuded calvaria, but showed no disposition to extend over the bone. In about three weeks the outer table began to exfoliate; at first at the margins, then under the adherent pericranium, the exfoliation extending more rapidly along the course of the nutrient vessels ramifying through that membrane. As this suppurating and exfoliating process progressed, granulations sprung from the diploe, till the entire surface presented the appearance of a healthy wound. The last portions of the outer table to become detached were the spots from which the pericranium had been removed.

The suppuration was very profuse, but the patient being strong, and enjoying excellent health at the time the wounds were inflicted, did not at any time during the course of treatment present those symptoms of depression which would naturally be expected to follow so extensive an injury, nor were there any symptoms indicating that the inflammation had extended to the brain or its membranes. The only inconvenience or unfavorable complication was a severe neuralgic pain, extending down the right side of the head and face; but after the external table of the skull was cast off the pain ceased, and there was no further disturbance of that character. The case progressed favorably, and in about three months from the time the scalp was removed nearly the entire surface was cicatrized.—*Med. and Surg. Reporter.*

MUCUNA PRURIENS.—A pharmacist in Savannah, Ga., has ascertained that the terrible itching caused by the injudicious handling of mucuna pruriens (cowhage) can be at once relieved by the application of camphor liniment.

TO CORRESPONDENTS.—Communications accepted:—Cases of Transplantation of Skin at the City Hospital.—Surgical Cases at the City Hospital.

BOOKS AND PAMPHLETS RECEIVED.—Lunacy: Its Past and Present. By Robert Gardiner Hill, F.S.A., late Medical Superintendent of the Lincoln Lunatic Asylum, &c. London. Pp. 109, iv.—The Old Franklin Almanac for 1871; comprising a great variety of Statistics, Chronological Tables, and other useful matter. A. Winch, Philadelphia. Price 20 cents.—The Physiological Laws of Human Increase. By Nathan Allen, M.D., of Lowell, Mass. Pp. 27.—Annual Report of the Surgeon-General United States Army. 1870. Pp. 10.—Memorandum referring to Extracts from Letters, Reviews and Bibliographical Notices of the Publications of the Surgeon-General's Office, U.S.A. Washington. Surgeon-General's Office, 1870. Pp. 19.

Deaths in fourteen Cities and Towns of Massachusetts for the week ending Dec. 3, 1870.

Cities and Towns.	*No. of Deaths.*
Boston	101
Charlestown	8
Worcester	16
Lowell	14
Milford	4
Cambridge	12
Salem	7
Lawrence	14
Springfield	5
Lynn	7
Fitchburg	3
Newburyport	4
Fall River	16
Haverhill	2
	213

Prevalent Diseases.	
Consumption	46
Pneumonia	21
Typhoid fever	13
Croup and Diphtheria	13
Scarlet fever	6

GEORGE DERBY, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, Dec. 3d, 101. Males, 57; females, 44. Abscess, 2—accident, 3—apoplexy, 4—disease of the brain, 5—bronchitis, 5—cancer, 2—cancrum, 1—cholera infantum, 2—consumption, 25—convulsions, 1—croup, 3—debility, 1—diarrhœa, 1—dropsy of brain, 1—diphtheria, 3—scarlet fever, 4—typhoid fever, 2—"fits," 1—disease of heart, 2—infantile, 5—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 3—inflammation of the lungs, 8—marasmus, 3—old age, 1—paralysis, 2—premature birth, 1—suicide, 2—unknown, 5—whoop. cough, 1.

Under 5 years of age, 32—between 5 and 20 years, 14—between 20 and 40 years, 22—between 40 and 60 years, 20—above 60 years, 13. Born in the United States, 71—Ireland, 26—other places, 4.